

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A sintered ferrite body having a main composition comprising ~~63-80%~~68-75% by mol of Fe₂O₃, and ~~3-15~~12% by mol of ZnO, the balance being manganese oxide; R_{cal} determined from the Fe₂O₃ content X (% by mol) by the formula (1) of R_{cal} = [200(X-50)]/(3X), and the ratio R (%) of Fe²⁺ per the total amount of Fe in said sintered body meeting the condition of R_{cal} - 2.0 ≤ R ≤ R_{cal} + 0.3; ~~and~~ said sintered body having a density of 4.9 g/cm³ or more; ~~and~~ said sintered ferrite body having a maximum magnetic flux density of 540 mT or more measured at 100°C in a magnetic field of 1000 A/m.
2. (canceled).
3. (previously presented): The sintered ferrite body according to claim 1, comprising 0.02-0.3% by weight (calculated as CaCO₃) of Ca, and 0.003-0.015% by weight (calculated as SiO₂) of Si, as sub-components, per 100% by weight of the main composition.
4. (previously presented): The sintered ferrite body according to claim 1, wherein said sintered ferrite body has volume resistivity of 0.1 Ω·m or more.

5. (previously presented): The sintered ferrite body according to claim 1, wherein said sintered ferrite body has a minimum-core-loss temperature of 80°C-120°C.

6. (previously presented): An electronic part formed by winding a wire around a magnetic core comprising the sintered ferrite body recited in claim 1.

7. (currently amended): A method for producing a sintered ferrite body having a main composition comprising ~~63-80%-68-75%~~ by mol of Fe₂O₃, and ~~3-15~~12% by mol of ZnO, the balance being manganese oxide; R_{cal} determined from the Fe₂O₃ content X (% by mol) by the formula (1) of R_{cal} = [200(X-50)]/(3X), and the ratio R (%) of Fe²⁺ per the total amount of Fe in the sintered body meeting the condition of R_{cal} - 2.0 ≤ R ≤ R_{cal} + 0.3; ~~and~~ said sintered body having a density of 4.9 g/cm³ or more; and said sintered ferrite body having a maximum magnetic flux density of 540 mT or more measured at 100°C in a magnetic field of 1000 A/m, said method comprising a step of adding a binder to ferrite powder, a molding step, a binder-removing step and a sintering step, said ferrite powder having a spinelization ratio S of 10-60%; the amount V (% by weight) of said binder added being in a range of 1.3 - 0.02S ≤ V ≤ 2.3 - 0.02S, assuming that the total amount of said ferrite powder and said binder is 100% by weight; the oxygen concentration in the atmosphere from said binder-removing step to the completion of said sintering step in a temperature range of 1150-1250°C being 0.1% or less by volume.

8. (original): The method for producing a sintered ferrite body according to claim 7, wherein said spinelization ratio of ferrite powder is 10-40%.

9. (previously presented): The method for producing a sintered ferrite body according to claim 7, wherein said ferrite powder has a specific surface area of 3000-7000 m²/kg.

10. (canceled).

11. (previously presented): The method for producing a sintered ferrite body according to claim 7, wherein 0.02-0.3% by weight (calculated as CaCO₃) of Ca, and 0.003-0.015% by weight (calculated as SiO₂) of Si are added as sub-components to 100% by weight of said main composition.

12. (canceled).

13. (previously presented): The sintered ferrite body according to claim 1, wherein said sintered ferrite body has a reduction ratio of a maximum magnetic flux density from 20°C to 100°C of 10% or less.

14. (canceled).

15. (canceled).